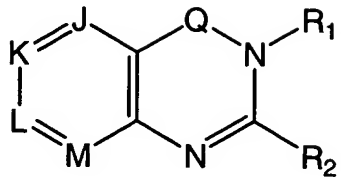
What is claimed is:

1. A compound comprising Formula XXXVII:



XXXVII

wherein

Q is selected from the group consisting of CO, CS, SO, SO_2, or $C=NR_9$;

J, K, L, and M are each independently selected from the group of CR_{12} and N, provided that at least one of K and L is CR_{12} where R_{12} is not hydrogen;

R_1 is $-ZR_m$, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R_1 is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C_{3-7})cycloalkyl and aryl;

R_2 is -UV, where U is a moiety providing 1-6 atom separation between V and the ring to which R_2 is attached and V comprises a basic nitrogen atom that is capable of interacting with a carboxylic acid side chain of an active site residue of a protein;

R_9 is hydrogen or is selected from the group consisting of alkyl, cycloalkyl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted; and

each R_{12} is hydrogen or is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

2. A compound according to claim 1, wherein V is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl comprising a nitrogen ring atom, and a heteroaryl comprising a nitrogen ring atom

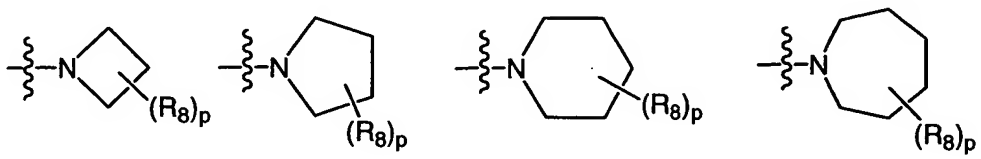
3. A compound according to claim 1, wherein V is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring wherein at least one substituent is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl comprising a nitrogen ring atom, and a heteroaryl comprising a nitrogen ring atom.

4. A compound according to claim 1, wherein the basic nitrogen of V is separated from the ring atom to which R_2 is attached by between 1-5 atoms.

5. A compound according to claim 1, wherein the basic nitrogen of V forms part of a primary, secondary or tertiary amine.

6. A compound according to claim 1, wherein the basic nitrogen of V is a nitrogen ring atom of a heterocycloalkyl comprising a nitrogen ring atom or a heteroaryl comprising a nitrogen ring atom.

7. A compound according to claim 1, wherein R_2 is selected from the group consisting of



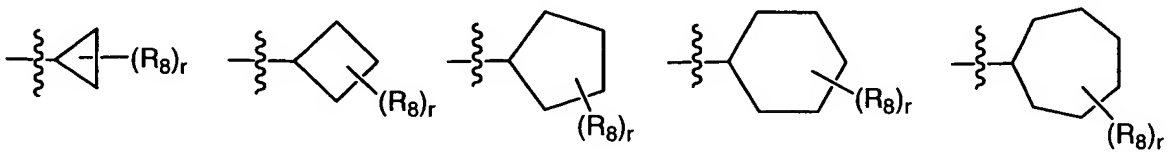
wherein p is 0-12 and each R_8 is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3, cyano, nitro, hydroxy, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, alkoxy, carbonyl group, imino group, sulfonyl group and sulfinyl group, each substituted or unsubstituted, with the proviso that at least one R_8 serves as V.

8. A compound according to claim 7, wherein at least one R_8 is a primary, secondary or tertiary amine.

9. A compound according to claim 7, wherein at least one R_8 is a substituted or unsubstituted heterocycloalkyl comprising a nitrogen ring atom or a substituted or unsubstituted heteroaryl comprising a nitrogen ring atom.

10. A compound according to claim 7, wherein at least one R_8 is selected from the group consisting of $-NH_2$, $-NH(C_{1-5}\text{ alkyl})$, $-N(C_{1-5}\text{ alkyl})_2$, piperazine, imidazole, and pyridine.

11. A compound according to claim 1, wherein R_2 is selected from the group consisting of



wherein r is 0-13 and each R_8 is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3, cyano, nitro, hydroxy, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, alkoxy, carbonyl group, imino group, sulfonyl group and sulfinyl group, each substituted or unsubstituted, with the proviso that at least one R_8 serves as V.

12. A compound according to claim 11, wherein at least one R_8 is a primary, secondary or tertiary amine.

13. A compound according to claim 11, wherein at least one R_8 is a substituted or unsubstituted heterocycloalkyl comprising a nitrogen ring atom or a substituted or unsubstituted heteroaryl comprising a nitrogen ring atom.

14. A compound according to claim 11, wherein at least one R_8 is selected from the group consisting of $-NH_2$, $-NH(C_{1-5}$ alkyl), $-N(C_{1-5}$ alkyl)$_2$, piperazine, imidazole, and pyridine.

15. A compound according to claim 1, wherein R_2 is selected from the group consisting of 3-amino-piperidin-1-yl, 3-aminomethyl-pyrrolidin-1-yl, azetidin-1-yl, 3-aminoazetidin-1-yl, pyrrolidin-1-yl, 3-aminocyclopent-1-yl, 3-aminomethylcyclopent-1-yl, 3-aminomethylcyclohex-1-yl, hexahydroazepin-1-yl, 3-aminohexahydroazepin-1-yl, 3-amino-cyclohex-1-yl, piperazin-1-yl, homopiperazin-1-yl, 3-amino-pyrrolidin-1-yl, and R-3-aminopiperidin-1-yl, each substituted or unsubstituted.

16. A compound according to claim 1, wherein R_2 is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring.

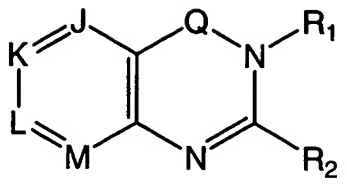
17. A compound according to claim 16, wherein R_1 is $-ZR_m$, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R_1 is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C_{3-7})cycloalkyl and aryl.

18. A compound according to claim 1, wherein R_1 is $-ZR_m$, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R_1 is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C_{3-7})cycloalkyl and aryl.

19. A compound according to claim 1, wherein at least one R_{12} is halogen.

20. A compound according to claim 1, wherein at least one R_{12} is fluorine.

21. A compound comprising Formula XXXVIII:



XXXVIII

wherein

Q is selected from the group consisting of CO, CS, SO, SO_2, or $C=NR_9$;

J, K, L, and M are each independently selected from the group of CR_{12} and N, provided that at least one of K and L is CR_{12} where R_{12} is not hydrogen;

R_1 is $-ZR_m$, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R_1 is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C_{3-7})cycloalkyl and aryl;

R_2 is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring;

R_9 is hydrogen or is selected from the group consisting of alkyl, cycloalkyl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted; and

each R_{12} is hydrogen or is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

22. A compound according to claim 21, wherein Z provides 1-3 atom separation between R_m and the ring.

23. A compound according to claim 21, wherein Z provides 1 atom separation between R_m and the ring.

24. A compound according to claim 23, wherein the 1 atom separation is provided by an atom selected from the group consisting of C, N, O, and S.

25. A compound according to claim 23, wherein the 1 atom separation is provided by a carbon atom.

26. A compound according to claim 23, wherein the 1 atom separation is provided by an oxygen atom.

27. A compound according to claim 23, wherein the 1 atom separation is provided by a nitrogen atom.

28. A compound according to claim 21, wherein Z is selected from the group consisting of $-CH_2-$, $-CH_2CH_2-$, $-CH_2CH_2CH_2-$, $-C(O)-$, $-CH_2C(O)-$, $-C(O)CH_2-$, $-CH_2-C(O)CH_2-$, $-C(O)CH_2CH_2-$, $-CH_2CH_2C(O)-$, $-O-$, $-OCH_2-$, $-CH_2O-$, $-CH_2OCH_2-$, $-OCH_2CH_2-$, $-CH_2CH_2O-$, $-N(CH_3)-$, $-NHCH_2-$, $-CH_2NH-$, $-CH_2NHCH_2-$, $-NHCH_2CH_2-$, $-CH_2CH_2NH-$, $-NH-C(O)-$, $-NCH_3-C(O)-$, $-C(O)NH-$, $-C(O)NCH_3-$, $-NHC(O)CH_2-$, $-C(O)NHCH_2-$, $-C(O)CH_2NH-$, $-CH_2NHC(O)-$, $-CH_2C(O)NH-$, $-NHCH_2C(O)-$, $-S-$, $-SCH_2-$, $-CH_2S-$, $-SCH_2CH_2-$, $-CH_2SCH_2-$, $-CH_2CH_2S-$, $-C(O)S-$, $-C(O)SCH_2-$, $-CH_2C(O)S-$, $-C(O)CH_2S-$, and $-CH_2SC(O)-$, each substituted or unsubstituted.

29. A compound according to claim 21, wherein Z is selected from the group consisting of $-CH_2-$, $-C(O)-$, $-C(S)-$, $-C(NH)-$, $-C(NR_9)-$, $-O-$, $-N(H)-$, $-N(R_9)-$, and $-S-$.

30. A compound according to claim 21, wherein R_m is a substituted or unsubstituted $-(C_{3-7})$cycloalkyl.

31. A compound according to claim 21, wherein R_m is a substituted or unsubstituted aryl.

32. A compound according to claim 21, wherein R_m is a substituted or unsubstituted phenyl.

33. A compound according to claim 21, wherein R_m is selected from the group consisting of (2-cyano)phenyl, (3-cyano)phenyl, (2-hydroxy)phenyl, (3-hydroxy)phenyl, (2-alkenyl)phenyl, (3-alkenyl)phenyl, (2-alkynyl)phenyl, (3-alkynyl)phenyl, (2-nitro)phenyl, (3-nitro)phenyl, (2-carboxy)phenyl, (3-carboxy)phenyl, (2-carboxamido)phenyl, (3-carboxamido)phenyl, (2-sulfonamido)phenyl, (3-sulfonamido)phenyl, (2-tetrazolyl)phenyl, (3-tetrazolyl)phenyl, (2-aminomethyl)phenyl, (3-aminomethyl)phenyl, (2-amino)phenyl, (3-amino)phenyl, (2-hydroxymethyl)phenyl, (3-hydroxymethyl)phenyl, (2-phenyl)phenyl, (3-phenyl)phenyl, (2-$CONH_2$)phenyl, (3-$CONH_2$)phenyl, (2-CONH(C_{1-7})alkyl)phenyl, (3-CONH(C_{1-7})alkyl)phenyl, (2-CO_2(C_{1-7})alkyl)phenyl, (3-CO_2(C_{1-7})alkyl)phenyl, -NH_2, -OH, -(C_{3-7})alkyl, -alkene, -alkyne, -CCH, -(C_{3-7})cycloalkyl, and -aryl, each substituted or unsubstituted.

34. A compound according to claim 21, wherein R_1 is $-OR_{11}$, where R_{11} is selected from the group consisting of substituted or unsubstituted alkyl, cycloalkyl, aryl, heteroaryl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl.

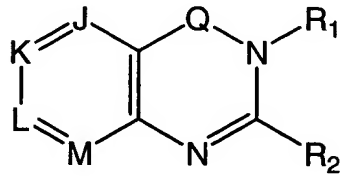
35. A compound according to claim 21, wherein Z is a carbonyl.

36. A compound according to claim 21, wherein R_1 is selected from the group consisting of -(CH_2)-(2-cyano)phenyl, -(CH_2)-(3-cyano)phenyl, -(CH_2)-(2-hydroxy)phenyl, -(CH_2)-(3-hydroxy)phenyl, -(CH_2)-(2-alkenyl)phenyl, -(CH_2)-(3-alkenyl)phenyl, -(CH_2)-(2-alkynyl)phenyl, -(CH_2)-(3-alkynyl)phenyl, -(CH_2)-(2-nitro)phenyl, -(CH_2)-(3-nitro)phenyl, -(CH_2)-(2-carboxy)phenyl, -(CH_2)-(3-carboxy)phenyl, -(CH_2)-(2-carboxamido)phenyl, -(CH_2)-(3-carboxamido)phenyl, -(CH_2)-(2-sulfonamido)phenyl, -(CH_2)-(3-sulfonamido)phenyl, -(CH_2)-(2-tetrazolyl)phenyl, -(CH_2)-(3-tetrazolyl)phenyl, -(CH_2)-(2-aminomethyl)phenyl, -(CH_2)-(3-aminomethyl)phenyl, -(CH_2)-(2-amino)phenyl, -(CH_2)-(3-amino)phenyl, -(CH_2)-(2-hydroxymethyl)phenyl, -(CH_2)-(3-hydroxymethyl)phenyl, -(CH_2)-(2-phenyl)phenyl, -(CH_2)-(3-phenyl)phenyl, -(CH_2)-(2-$CONH_2$)phenyl, -(CH_2)-(3-$CONH_2$)phenyl, -(CH_2)-(2-CONH(C_{1-7})alkyl)phenyl, -(CH_2)-(3-CONH(C_{1-7})alkyl)phenyl,

-(CH_2)-(2-CO_2(C_1-$_7$)alkyl)phenyl, -(CH_2)-(3-CO_2(C_1-$_7$)alkyl)phenyl, -CH_2-NH_2, -CH_2-OH, -CH_2-(C_3-$_7$)alkyl, -CH_2-alkene, -CH_2-alkyne, -CH_2-CCH, -CH_2-(C_3-$_7$)cycloalkyl, and -CH_2-aryl, each substituted or unsubstituted.

37. A compound according to claim 21, wherein R_1 is selected from the group consisting of -(C_1)alkyl-aryl, -(C_1)alkyl-bicycloaryl, -aminoaryl, -aminoheteroaryl, -aminobicycloaryl, -aminoheterobicycloaryl, -O-aryl, -O-heteroaryl, -O-bicycloaryl, -O-heterobicycloaryl, -(S)-aryl, -(S)-heteroaryl, -(S)-bicycloaryl, -S-heterobicycloaryl, -C(O)-aryl, -C(O)-heteroaryl, - C(O)-bicycloaryl, - C(O)-heterobicycloaryl, -C(S)-aryl, -C(S)-heteroaryl, -C(S)-bicycloaryl, -C(S)-heterobicycloaryl, -S(O)-aryl, -S(O)-heteroaryl, -S(O)-bicycloaryl, -SO_2-heterobicycloaryl, -SO_2-aryl, -SO_2-heteroaryl, -SO_2-bicycloaryl, -SO_2-heterobicycloaryl, -C(NR_9)-aryl, -C(NR_9)-heteroaryl, -C(NR_9)-bicycloaryl, -C(NR_9)-heterobicycloaryl, each substituted or unsubstituted.

38. A compound comprising Formula XXXIX:



XXXIX

wherein

Q is selected from the group consisting of CO, CS, SO, SO_2, or C=NR_9;

J, K, L, and M are each independently selected from the group of CR_{12} and N, provided that at least one of K and L is CR_{12} where R_{12} is not hydrogen;

R_1 is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring;

R_2 is -UV, where U is a moiety providing 1-6 atom separation between V and the ring to which R_2 is attached and V comprises a basic nitrogen atom that is capable of interacting with a carboxylic acid side chain of an active site residue of a protein;

R_9 is hydrogen or is selected from the group consisting of alkyl, cycloalkyl,

heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted; and

each R_{12} is hydrogen or is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

39. A compound according to claim 38, wherein U provides 1-4 atom separation between V and the ring.

40. A compound according to claim 38, wherein U provides 1-3 atom separation between V and the ring.

41. A compound according to claim 38, wherein U is selected from the group consisting of -CH_2-, -CH_2CH_2-, -$CH_2CH_2CH_2$-, -C(O)-, -$CH_2C(O)$-, -$C(O)CH_2$-, -CH_2-$C(O)CH_2$-, -$C(O)CH_2CH_2$-, -$CH_2CH_2C(O)$-, -O-, -OCH_2-, -CH_2O-, -CH_2OCH_2-, -OCH_2CH_2-, -CH_2CH_2O-, -$N(CH_3)$-, -$NHCH_2$-, -CH_2NH-, -CH_2NHCH_2-, -$NHCH_2CH_2$-, -CH_2CH_2NH-, -NH-C(O)-, -NCH_3-C(O)-, -C(O)NH-, -$C(O)NCH_3$-, -$NHC(O)CH_2$-, -$C(O)NHCH_2$-, -$C(O)CH_2NH$-, -$CH_2NHC(O)$-, -$CH_2C(O)NH$-, -$NHCH_2C(O)$-, -S-, -SCH_2-, -CH_2S-, -SCH_2CH_2-, -CH_2SCH_2-, -CH_2CH_2S-, -C(O)S-, -$C(O)SCH_2$-, -$CH_2C(O)S$-, -$C(O)CH_2S$-, and -$CH_2SC(O)$-, each substituted or unsubstituted.

42. A compound according to claim 38, wherein U is selected from the group consisting of -CH_2-, –CHR_9-, –$C(R_9)(R_9)$-, -O-, -N(H)-, -$N(R_9)$-, and -S-.

43. A compound according to claim 38, wherein V is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl comprising a nitrogen ring atom, and a heteroaryl comprising a nitrogen ring atom

44. A compound according to claim 38, wherein the basic nitrogen of V is separated from the ring atom to which R_2 is attached by between 1-5 atoms.

45. A compound according to claim 38, wherein the basic nitrogen of V forms part of a primary, secondary or tertiary amine.

46. A compound according to claim 38, wherein the basic nitrogen of V is a nitrogen ring atom of a heterocycloalkyl comprising a nitrogen ring atom or a heteroaryl comprising a nitrogen ring atom.

47. A compound according to claim 38, wherein R_1 is a substituted or unsubstituted aryl.

48. A compound according to claim 38, wherein R_1 is a substituted or unsubstituted phenyl.

49. A compound according to claim 38, wherein R_1 is a substituted or unsubstituted heteroaryl.